this script is meant to verify the salary of a potential employee in his/ her previous company. We will use support vector regression model to learn from the position salary dataset of the potential employee's previous company and predict whether the potential employee earned 160k salary as a regional manager

1. Import the dataset

```
dataset = read.csv('Position_Salaries.csv')
dataset = dataset[2:3]
```

2. Fit Polynomial Linear Regression to the dataset
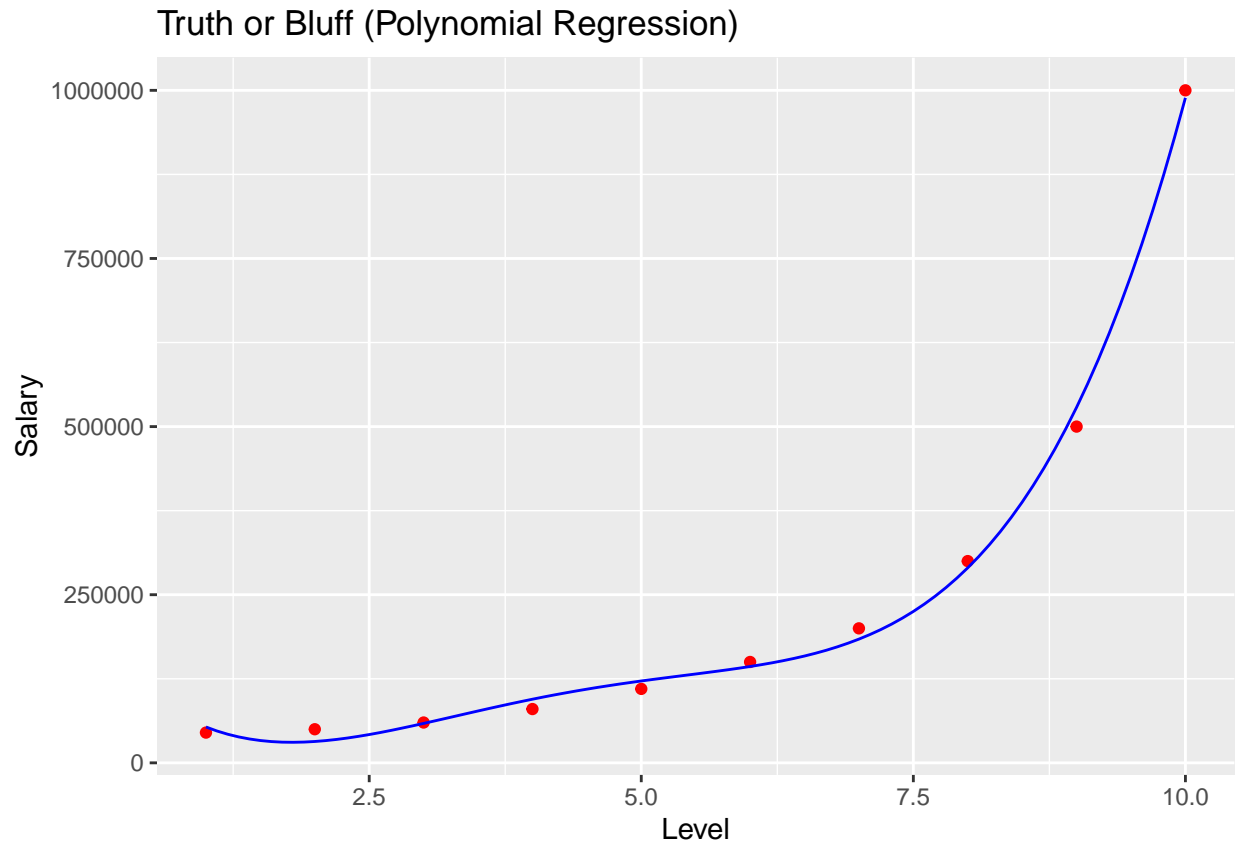
```
dataset$Level2 = dataset$Level^2
dataset$Level3 = dataset$Level^3
dataset$Level4 = dataset$Level^4
poly_reg = lm(formula = Salary ~ .,
              data = dataset)
```

3. Visualize

```
library(ggplot2)

x_grid = seq(min(dataset$Level), max(dataset$Level), 0.1)

ggplot() +
      geom_point(aes(x = dataset$Level, y = dataset$Salary), colour = 'red') +
      geom_line(aes(x = x_grid,
                    y = predict(poly_reg,
                                newdata = data.frame(Level = x_grid,
                                                     Level2 = x_grid^2,
                                                     Level3 = x_grid^3,
                                                     Level4 = x_grid^4))),
                colour = 'blue') +
      ggtitle('Truth or Bluff (Polynomial Regression)') +
      xlab('Level') + ylab('Salary')
```

Truth or Bluff (Polynomial Regression)

4. Predict the result

```
predict(poly_reg, data.frame(Level = 6.5,
                             Level2 = 6.5^2,
                             Level3 = 6.5^3,
                             Level4 = 6.5^4))
```

```
##        1
## 158862.5
```

5. Result

As one can see, this model predict the salary for the position to be 158k, whereas the actual salary is 160k